#### **AMENDMENTS TO THE CLAIMS:**

Please amend claims 1 and 9, cancel claims 2, 3, 5 – 7, 10 and 11, and add new claims 13 – 15, as set forth in the listing of claims that follows:

### Listing of Claims

(currently amended) An antenna unit, comprising:
 a wire antenna element;

a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle.

wherein a height and off-centering of the wire antenna element from a central area of the antenna unit directively shifts the null of the terrestrial signal polarization pattern.

wherein the patch antenna element includes a high dielectric substrate intermediately located between a top metallization and a bottom metallization, and

wherein a feed pin electrically couples the top metallization to the bottom metallization.

- 2 (canceled)
- 3. (canceled)
- 4. (canceled)
- 5. (canceled)
- 6. (canceled)

- 7. (canceled)
- 8. (canceled)
- 9. (currently amended) A method for improving antenna radiation characteristics, comprising the steps of:

providing at least two antenna units in a vehicular diversity application, wherein the antenna unit includes a wire antenna element and a patch antenna element:

providing the wire antenna element with a height and off-centering from a central area of the antenna unit such that nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle; and

providing a larger spatial region for reception of terrestrial signals that propagate toward the vehicle-1

wherein the at least two antenna units are positioned in a diversity application, and

wherein the diversity application positions are selected from the group consisting of a vehicular a center location, left, driver-side location, a right, passenger-side location, a hood location, a left, driver-side front quarter panel location, a right, passenger-side front quarter panel location, an instrument panel location, a left, driver-side mirror location, and a right, passenger-side mirror location.

- 10. (canceled)
- 11. (canceled)

12. (original) An antenna unit, comprising:

a wire antenna element; and

a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle, and

wherein the patch antenna element includes a high dielectric substrate intermediately located between a top metallization and a bottom metallization, and

wherein a feed pin electrically couples the top metallization to the bottom metallization, and

wherein the wire antenna element includes a top plate coupled to a first stem soldered to the patch antenna and a second stem joined directly to the feed pin.

# 13. (new) <u>An antenna unit, comprising:</u>

a wire antenna element;

a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle,

wherein a height and off-centering of the wire antenna element from a central area of the antenna unit directively shifts the null of the terrestrial signal polarization pattern, and

wherein the wire antenna element is a straight-wire element soldered to the patch antenna element.

14. (new) An antenna unit, comprising:

a wire antenna element;

a patch antenna element, wherein nulls of a terrestrial signal polarization

pattern are directed toward a passenger compartment of a vehicle to create a

larger spatial region for reception of terrestrial signals that propagate toward the vehicle,

wherein a height and off-centering of the wire antenna element from a central area of the antenna unit directively shifts the null of the terrestrial signal polarization pattern, and

wherein the wire antenna element is a helical element soldered to the patch antenna element.

## 15. (new) An antenna unit, comprising:

a wire antenna element;

a patch antenna element, wherein nulls of a terrestrial signal polarization pattern are directed toward a passenger compartment of a vehicle to create a larger spatial region for reception of terrestrial signals that propagate toward the vehicle.

wherein a height and off-centering of the wire antenna element from a central area of the antenna unit directively shifts the null of the terrestrial signal polarization pattern, and

wherein the wire antenna element includes a cross-antenna element coupled to a stem that is soldered to the patch antenna element.